

Listing of Claims

1. (currently amended) A vacuum packaging machine for performing a vacuum sealing operation on a product package containing two or more products, including or in combination with comprising:

- a) a conveyor; and
- b) a vacuum chamber;

the conveyor arranged to deliver the product package from an upstream station to a position adjacent ~~[[a]]~~ the vacuum chamber, and having a longitudinal direction defined by the direction of travel of the product package on the conveyor;

the vacuum chamber arranged to receive the product package containing two or more products and perform a vacuum, sealing and cutting operation on the product package, the vacuum chamber ~~including~~ comprising

- a) a heat sealing and cutting assembly, and
- b) end walls;

~~therein which is~~ the heat sealing and cutting assembly being oriented transversely to the longitudinal direction of the conveyor, ~~and which is~~ located in a position in the vacuum chamber such that there is sufficient spacing between the end walls of the vacuum chamber and the heat sealing and cutting assembly for the product package containing two or more products to be loaded into the vacuum chamber with at least one product located in front of the heat sealing and cutting assembly and at least one other product located behind the heat sealing and cutting assembly, the heat sealing and cutting assembly arranged to seal and cut across the product package between two products to form two separate evacuated packages.

2. (currently amended) ~~[[A]]~~ The vacuum packaging machine ~~as claimed in of~~ claim 1, wherein the heat sealing and cutting assembly ~~includes~~ comprises a pair of heat seal bars.

3. (currently amended) ~~[[A]]~~ The vacuum packaging machine ~~as claimed in of~~ claim ~~[[2]]~~ 1, wherein the heat sealing and cutting assembly ~~includes~~ comprises a pair of heat seal anvils.

4. (currently amended) [[A]] The vacuum packaging machine ~~as claimed in of claim 2 or 3~~ 1, wherein the heat sealing and cutting assembly ~~includes~~ comprises a cutting device which is operable to cut the product package ~~between the two heat seals~~ after sealing, to thereby form two separate evacuated packages.

5.- 6. (canceled)

7. (currently amended) [[A]] The vacuum packaging machine ~~as claimed in any one of claims 2 to 6~~ claim 1, wherein the heat sealing and cutting assembly is configured to form two heat seal lines between the two products and then cut between the two heat seal lines to form two separate evacuated packages, following evacuation of the product package.

8. (currently amended) [[A]] The vacuum packaging machine ~~as claimed in any one of the preceding claims~~ claim 1, including comprising an arrangement to clamp the portion of the package to be sealed, prior to sealing and cutting the package.

9. -10. (canceled)

11. (currently amended) [[A]] The vacuum packaging machine ~~as claimed in any one of the preceding claims~~ claim 1, including comprising a puncturing device which is operable to puncture at least one aperture in the portion of the product package adjacent the sealing and cutting assembly so that as the vacuum and sealing operation occurs, air is evacuated from the package through the punctured aperture (s) prior to heat sealing.

12. (canceled)

13. (currently amended) [[A]] The vacuum packaging machine ~~as claimed in any one of the preceding claims~~ claim 1, configured to receive, seal and separate a package having at least one open end and containing at least two products, into individual product packages, and including comprising at least one further heat sealing assembly spaced from the heat sealing and cutting assembly and configured to seal the at least one open end ~~(s)~~ of the package after evacuation while the heat sealing and cutting

assembly carries out the sealing and cutting operation across the product package between two products to form two individual product packages.

14. (currently amended) [[A]] The vacuum packaging machine ~~as claimed in any one of the preceding claims~~ claim 1, wherein the conveyor is configured to deliver the product package directly into the vacuum chamber in the longitudinal direction.

15. (canceled)

16. (currently amended) [[A]] The vacuum packaging machine ~~as claimed in any one of the preceding claims~~ claim 1, including comprising one or more chamber conveyors for receiving the product package into the vacuum chamber and/or conveying the product package from the vacuum chamber following the vacuum sealing operation.

17. (canceled)

18. (currently amended) [[A]] The vacuum packaging machine ~~as claimed in any one of claims~~ claim 1 to 13, wherein the conveyor is arranged to deliver the product package to a position alongside the vacuum chamber, and ~~including an arrangement~~ comprising a further conveyor configured to load the product package from the conveyor into the vacuum chamber in a transverse direction.

19. - 20. (canceled)

21. (currently amended) [[A]] The vacuum packaging machine ~~as claimed in any one of the preceding claims~~ claim 1, which is indexed to align the portion of the product package between the two products with the heat sealing and cutting assembly.

22. - 23. (canceled)

24. (currently amended) [[A]] The vacuum packaging machine as claimed in ~~any one of claims 21 to 23~~ claim 1, including comprising a sensor to sense the trailing edge of a leading product and/or a leading edge of a trailing product in the product package on a conveyor.

25. (currently amended) [[A]] The vacuum packaging machine ~~as claimed in any one of the preceding claims~~ claim 1, including comprising a further heat sealing and cutting assembly spaced from the heat sealing and cutting assembly, the heat sealing and cutting assemblies configured to heat seal and cut between at least three products in a product package to form three separate evacuated packages.

26. (canceled)

27. (currently amended) [[A]] The vacuum packaging machine ~~as claimed in any one of claims~~ claim 1 to 25, configured to concurrently load more than one package into the vacuum chamber at a time, the packages being arranged transversely in the vacuum chamber so that they can be vacuum sealed concurrently.

28. (canceled)

29. (currently amended) [[A]] The vacuum packaging machine ~~as claimed in of~~ claim 28 1, wherein the vacuum packaging machine is configured to load and unload product packages concurrently.

30. - 31. (canceled)

32. (currently amended) [[A]] The vacuum packaging machine ~~as claimed in any one of the preceding claims~~ claim 1, ~~provided~~ in combination with a wrapping or bagging machine arranged to load at least two products into each product package to be sealed in the vacuum packaging machine.

33. (canceled)

34. (currently amended) The combination ~~as claimed in of~~ claim 32 or 33, wherein the wrapping or bagging machine is configured to position the products in each product package with a predetermined spacing.

35. (currently amended) The combination ~~as claimed in any one of claims~~ claim 32 ~~to 34~~, wherein the wrapping or bagging machine is programmable to vary the product package size or predetermined spacing.

36. (currently amended) The combination ~~as claimed in any one of claims~~ claim 32 ~~to 35~~, wherein the wrapping or bagging machine is configured to capture air in the product package when sealing the product package.

37. – 61. (canceled)